AMENTMENTS

In The Claims:

Claims 1-74 (canceled)

75. (currently amended) A multi-chip structure comprising:

a first chip comprising a pad comprising a metal layer, a copper layer over said metal layer, and a nickel layer over said copper layer;

a second chip; and

a tin-containing material connecting said pad to said second chip.

Claims 76-77 (canceled)

78. (previously presented) The structure of Claim 75, wherein said pad further comprises a gold layer over said nickel layer.

79. (currently amended) The structure of Claim 75, wherein said tin-containing ~~bump~~ material further comprises copper.

80. (previously presented) The structure of Claim 75 further comprising a wire wirebonded to said first chip.

81. (previously presented) The structure of Claim 75, wherein said tin-containing material further comprises lead.

82. (previously presented) The structure of Claim 75, wherein said tin-containing material further comprises silver.

83. (previously presented) A multi-chip structure, comprising:

a first chip comprising:

a semiconductor substrate comprising multiple MOS devices,

a metallization structure over said semiconductor substrate,

a passivation layer over said metallization structure, an opening in said passivation layer exposing a top surface of a first pad of said metallization structure, and

a second pad connected to said top surface of said first pad, wherein said second pad comprising a copper layer and a nickel layer over said copper layer;

a second chip over said first chip; and

a tin-containing material connecting said second pad to said second chip.

Claims 84-85 (canceled)

86. (previously presented) The structure of Claim 83, wherein said second pad further comprises a gold layer over said nickel layer.

87. (previously presented) The structure of Claim 83, wherein said tin-containing material further comprises copper.

88. (currently amended) The structure of Claim 83, wherein said second pad further comprises a gold layer under said copper layer.~~, wherein said gold layer has a thickness of greater than 1 micron.~~

89. (previously presented) The structure of Claim 83, wherein said second pad comprises an electroplated metal.

Claims 90 (canceled)

91. (previously presented) The structure of Claim 83 further comprising a wire wirebonded to said first chip.

92. (previously presented) The structure of Claim 83, wherein said tin-containing material further comprises lead.

93. (previously presented) The structure of Claim 83, wherein said tin-containing material further comprises silver.

94. (previously presented) A multi-chip structure, comprising:

a first chip comprising:

a semiconductor substrate comprising multiple MOS devices,

a metallization structure over said semiconductor substrate,

a passivation layer over said metallization structure, an opening in said passivation layer exposing a first pad of said metallization structure,

a trace over said passivation layer, and

a second pad connected to said first pad through said trace, wherein said second pad comprises a copper layer and a nickel layer over said copper layer;

a second chip over said first chip; and

a tin-containing material connecting said second pad to said second chip.

Claims 95-96 (canceled)

97. (previously presented) The structure of Claim 94, wherein said second pad further comprises a gold layer over said nickel layer.

98. (previously presented) The structure of Claim 94, wherein said tin-containing material further comprises copper.

99. (previously presented) The structure of Claim 94, wherein said tin-containing material further comprises lead.

100. (previously presented) The structure of Claim 94, wherein said tin-containing material further comprises silver.

101. (currently amended) The structure of Claim 94 further comprising a wire wirebonded to a third pad of said first chip.

102. (previously presented) The structure of Claim 75, wherein said tin-containing material covers a top surface and a sidewall of said pad.

103. (previously presented) The structure of Claim 83, wherein said tin-containing material covers a top surface and a sidewall of said second pad.

104. (currently amended) The structure of Claim 83, wherein said passivation layer comprises silicon nitride.

105. (previously presented) The structure of Claim 94, wherein said tin-containing material covers a top surface and a sidewall of said second pad.

106. (previously presented) The structure of Claim 94, wherein said trace comprises a gold layer having a thickness of greater than 1 micron.

107. (currently amended) The structure of Claim 94, wherein said passivation layer comprises silicon nitride.

108. (new) The structure of Claim 75, wherein said metal layer comprises titanium.

109. (new) The structure of Claim 108, wherein said metal layer further comprises tungsten.

110. (new) The structure of Claim 75, wherein said metal layer comprises chromium.

111. (new) The structure of Claim 75, wherein said pad further comprises a gold layer under said metal layer.

112. (new) The structure of Claim 111, wherein said gold layer has a thickness of

greater than 1 micron.

113. (new) The structure of Claim 111 further comprising a titanium-containing layer under said gold layer.

114. (new) The structure of Claim 113, wherein said titanium-containing layer further comprises tungsten.

115. (new) The structure of Claim 75, wherein said pad comprises electroplated metal.

116. (new) The structure of Claim 75, wherein said nickel layer is on said copper layer.

117. (new) The structure of Claim 75, wherein said tin-containing material is on said nickel layer.

118. (new) The structure of Claim 83, wherein said passivation layer has a thickness of greater than 0.35 microns.

119. (new) The structure of Claim 83, wherein said first pad comprises aluminum.

120. (new) The structure of Claim 83, wherein said first pad comprises electroplated copper.

121. (new) The structure of Claim 83, wherein said semiconductor substrate comprises silicon.

122. (new) The structure of Claim 88, wherein said gold layer has a thickness of greater than 1 micron.

123. (new) The structure of Claim 88, wherein said second pad further comprises a titanium-containing layer under said gold layer.

124. (new) The structure of Claim 123, wherein said titanium-containing layer comprises tungsten.

125. (new) The structure of Claim 83, wherein said nickel layer is on said copper layer.

126. (new) The structure of Claim 83, wherein said second pad comprises a titanium-containing layer under said copper layer.

127. (new) The structure of Claim 126, wherein said titanium-containing layer comprises tungsten.

128. (new) The structure of Claim 83, wherein said second pad comprises a chromium-containing layer under said copper layer.

129. (new) The structure of Claim 83, wherein said tin-containing material is on said nickel layer.

130. (new) The structure of Claim 94, wherein said passivation layer has a thickness of greater than 0.35 microns.

131. (new) The structure of Claim 94, wherein said first pad comprises aluminum.

132. (new) The structure of Claim 94, wherein said first pad comprises electroplated copper.

133. (new) The structure of Claim 94, wherein said semiconductor substrate comprises silicon.

134. (new) The structure of Claim 94, wherein said trace comprises a titanium-containing layer and a gold layer over said titanium-containing layer.

135. (new) The structure of Claim 134, wherein said titanium-containing layer comprises tungsten.

136. (new) The structure of Claim 94, wherein said trace comprises gold.

137. (new) The structure of Claim 94 further comprising a polymer layer between said trace and said passivation layer.

138. (new) The structure of Claim 137, wherein said polymer layer comprises polyimide.

139. (new) The structure of Claim 137, wherein said polymer layer comprises benzocyclobutene.

140. (new) The structure of Claim 94 further comprising a polymer layer on said trace.

141. (new) The structure of Claim 140, wherein said polymer layer comprises polyimide.

142. (new) The structure of Claim 140, wherein said polymer layer comprises benzocyclobutene.

143. (new) The structure of Claim 94 further comprising a polymer layer and first and second patterned metal layers over said passivation layer, wherein said polymer layer is between said first and second patterned metal layers, said first and second patterned metal layers comprises said trace.

144. (new) The structure of Claim 143, wherein said polymer layer comprises polyimide.

145. (new) The structure of Claim 143, wherein said polymer layer comprises benzocyclobutene.

146. (new) The structure of Claim 94, wherein said trace comprises an electroplated metal.

147. (new) The structure of Claim 94, wherein said nickel layer is on said copper layer.

148. (new) The structure of Claim 94, wherein said second pad further comprises a gold layer under said copper layer.

149. (new) The structure of Claim 148, wherein said gold layer has a thickness of greater than 1 micron.

150. (new) The structure of Claim 148, wherein said second pad further comprises a titanium-containing layer under said gold layer.

151. (new) The structure of Claim 150, wherein said titanium-containing layer comprises tungsten.

152. (new) The structure of Claim 94, wherein said second pad comprises a titanium-containing layer under said copper layer.

153. (new) The structure of Claim 152, wherein said titanium-containing layer comprises tungsten.

154. (new) The structure of Claim 94, wherein said second pad comprises a chromium-containing layer under said copper layer.

155. (new) The structure of Claim 94, wherein said tin-containing material is on said nickel layer.

156. (new) The structure of Claim 94, wherein said trace has a sidewall separated from said passivation layer.

157. (new) The structure of Claim 101, wherein said third pad comprises a gold layer.

158. (new) The structure of Claim 157, wherein said gold layer has a thickness of greater than 1 micron.

159. (new) The structure of Claim 157, wherein said third pad has a titanium-containing layer under said gold layer.

160. (new) The structure of Claim 159, wherein said titanium-containing layer comprises tungsten.

161. (new) The structure of Claim 101, wherein said third pad has a same material as said trace.